

**WRITTEN OPINION  
OF THE INTERNATIONAL  
SEARCHING AUTHORITY  
(SUPPLEMENTARY SHEET)**

**10/589793**  
International reference  
PCT/EP2005/056284

**IAP6 Rec'd PCT/PTO 17 AUG 2006**

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**Re Box V**

**Reasoned statement with regard to novelty, inventive step and industrial applicability;  
citations and explanations supporting such statement**

1. Reference is made to the following document:

D1: US 5495830 (GENERAL MOTORS CORP) 5 March 1996 (1996-03-05)

2. The document D1 is considered to be the closest prior art in respect of the subject matter of claim 1. It discloses (the references in brackets relate to this document):

a method for determining a phase of an internal combustion engine with an intake zone (27), an outlet zone (23), at least one camshaft, which acts on gas exchange valves and whose phase in respect of a crankshaft (16) can be adjusted by means of a phase adjusting device (24), and with at least one sensor (46, 48), with a determined phase (actual measured phase offset) being determined as a function of its measurement signal, with which:

- a correction value is determined as a function of the determined phase then assigned and a predetermined default phase (desired phase offset) and
- the respectively determined phase is corrected as a function of the correction value during subsequent operation (the offset error driven controllably toward zero).

3. The subject matter of claim 1 therefore differs from the known document D1 in that the phase adjusting device is activated to adjust the phase of the camshaft, until a reflux of gas from the outlet zone into the intake zone is identified.

4. The subject matter of claim 1 is therefore novel (Article 33(2) PCT).

5. The object to be achieved with the present invention can therefore be seen as, to create a method for determining a phase of an internal combustion engine, which

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allows precise determination of the phase.

This object is achieved by the above-mentioned differentiating features.

This solution is neither known from the documents cited in the international search report nor is it suggested by them. Therefore the solution proposed in claim 1 of the present application is based on an inventive step (Article 33(3) PCT).

6. The same reasoning applies correspondingly to the independent claim 10. The subject matter of claim 10 is therefore novel (Article 33(2) PCT) and based on an inventive step (Article 33(3) PCT).

7. Claims 2-9 are dependent on claim 1 and therefore also satisfy PCT requirements with regard to novelty and inventive step.

8. Contrary to the requirements of rule 5.1 a)ii) PCT neither the pertinent prior art disclosed in the document D1 nor the document itself is cited in the description.

9. The independent claims 1, 10 are not drafted in the two-part form according to rule 6.3 b) PCT. However in the present instance the two-part form appears expedient. Therefore the features known in combination with each other from the prior art (document D1) belong in the preamble (rule 6.3 b)i) PCT) and the other features belong in the characterizing portion (rule 6.3 b)ii) PCT).